Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the claims:

1-21. (canceled)

22. (previously presented) A microelectromechanical device, comprising:

at least one freestanding flexible member formed from an alloy consisting essentially of about 1 to 99.9 wt% platinum and about 1 to 99 wt% palladium, wherein platinum and palladium are present in an amount sufficient to provide at least one performance characteristic at least 50% greater than either noble metal alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

23. (previously presented) A microelectromechanical device, comprising:

at least one freestanding flexible member formed from an alloy comprising about 70 wt.% Au and about 30 wt.% Pt, wherein platinum and gold are present in an amount sufficient to provide at least one performance characteristic at least 50% greater than either noble metal alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

24. (previously presented) A microelectromechanical device, comprising:

at least one freestanding flexible member formed from an alloy comprising about 66 wt.% Au, about 17 wt.% Ni and about 17 wt.% Cr.

25-29. (canceled)

30. (previously presented) A microelectromechanical device including a mirror, comprising:

a freestanding flexible member formed from an alloy comprising one or more noble metals selected from the group consisting of gold, platinum and palladium; and one or more alloying elements, the elements selected from iridium, ruthenium, rhodium, tungsten, osmium and nickel, wherein the one or more alloying elements form a solid solution with the one or more noble metals having an equilibrium solid solubility of at least 1 wt.% in the noble metal and wherein the one or more alloying elements are present in an amount sufficient to provide at least one performance characteristic at least 50% greater than the noble metal alone;

at least one supporting member for positioning the freestanding flexible member apart from a substrate; and

a mirror positioned on the flexible member and capable a movement when the flexible member is moved.

31-36. (canceled)

37. (new) A micromechanical device, comprising:

at least one freestanding flexible member formed from an alloy, where the alloy comprises platinum and alloying elements rhodium and ruthenium, wherein each of the alloying elements have an equilibrium solid solubility of at least 1 wt.% in the platinum, and wherein the alloying elements are present in an amount that does not result in precipitates.

38. (new) The microelectromechanical device of claim 37, wherein the alloying elements are present in an amount sufficient to provide at least one performance characteristic at

least 50% greater than the platinum alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

39. (new) The device of claim 37, wherein the alloy comprises 78.9 to 80.1 wt.% Pt, 14.9 to 15.1 wt.% Rh, and 5.0 to 6.1 wt.% Ru.

40. (new) The device of claim 37, wherein the alloy exhibits an electrical conductivity that is at least 10% of the electrical conductivity of the platinum alone.

41. (new) The device of claim 37, wherein the device comprises an actuator.

42. (new) The device of claim 41, wherein the device comprises an optical switching device.

43. (new) The device of claim 38, wherein the tensile strength is at least about 1000 MPa.

44. (new) The device of claim 38, wherein the yield strength is at least about 750 MPa.

45. (new) The device of claim 38, wherein the hardness is about 5 GPa.

46. (new) A micromechanical device, comprising:

at least one freestanding flexible member formed from an alloy, where the alloy comprises platinum and alloying element iridium, wherein the alloying element has an equilibrium solid solubility of at least 1 wt.% in the platinum, and wherein the alloying element is present in an amount that does not result in precipitates.

47. (new) The microelectromechanical device of claim 46, wherein the alloying element is present in an amount sufficient to provide at least one performance characteristic at least 50% greater than the platinum alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

48. (new) The device of claim 46 wherein the alloy comprises about 65 to 99.9 wt.% Pt and about 0.1 to 35 wt.% Ir.

49. (new) The device of claim 46, wherein the alloy exhibits an electrical conductivity that is at least 10% of the electrical conductivity of the platinum alone.

50. (new) The device of claim 46, wherein the device comprises an actuator.

51. (new) The device of claim 50, wherein the device comprises an optical switching device.

52. (new) The device of claim 47, wherein the tensile strength is at least about 1000 MPa.

53. (new) The device of claim 47, wherein the yield strength is at least about 750 MPa.

54. (new) The device of claim 47, wherein the hardness is about 5 GPa.

55. (new) A micromechanical device, comprising:

at least one freestanding flexible member formed from an alloy, where the alloy comprises platinum and alloying element ruthenium, wherein the alloying element has an equilibrium solid solubility of at least 1 wt.% in the platinum, and wherein the alloying element is present in an amount that does not result in precipitates.

56. (new) The microelectromechanical device of claim 55, wherein the alloying element is present in an amount sufficient to provide at least one performance characteristic at least 50% greater than the platinum alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

57. (new) The device of claim 55, wherein the allow comprises about 80 to 99.9 wt.% Pt and about 0.1 to 20 wt.% Ru.

58. (new) The device of claim 55, wherein the alloy exhibits an electrical conductivity that is at least 10% of the electrical conductivity of the platinum alone.

59. (new) The device of claim 55, wherein the device comprises an actuator.

60. (new) The device of claim 59, wherein the device comprises an optical switching device.

61. (new) The device of claim 56, wherein the tensile strength is at least about 1000 MPa.

62. (new) The device of claim 56, wherein the yield strength is at least about 750 MPa.

63. (new) The device of claim 56, wherein the hardness is about 5 GPa.

64. (new) A micromechanical device, comprising:

at least one freestanding flexible member formed from an alloy, where the alloy comprises platinum and alloying element rhodium, wherein the alloying element has an equilibrium solid solubility of at least 1 wt.% in the platinum, and wherein the alloying element is present in an amount that does not result in precipitates.

65. (new) The microelectromechanical device of claim 64, wherein the alloying element is present in an amount sufficient to provide at least one performance characteristic at least 50% greater than the platinum alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

66. (new) The device of claim 64, wherein the alloy comprises about 60 to 99.9 wt.% Pt and about 0.1 to 40 wt.% Rh.

67. (new) The device of claim 64, wherein the alloy exhibits an electrical conductivity that is at least 10% of the electrical conductivity of the platinum alone.

68. (new) The device of claim 64, wherein the device comprises an actuator.

69. (new) The device of claim 68, wherein the device comprises an optical switching device.

70. (new) The device of claim 65, wherein the tensile strength is at least about 1000 MPa.

71. (new) The device of claim 65, wherein the yield strength is at least about 750 MPa.

72. (new) The device of claim 65, wherein the hardness is about 5 GPa.

73. (new) A micromechanical device, comprising:

at least one freestanding flexible member formed from an alloy, where the alloy comprises platinum and alloying element nickel, wherein the alloying element has an equilibrium solid solubility of at least 1 wt.% in the platinum, and wherein the alloying element is present in an amount that does not result in precipitates.

74. (new) The microelectromechanical device of claim 73, wherein the alloying element is present in an amount sufficient to provide at least one performance characteristic at least 50% greater than the platinum alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

75. (new) The device of claim 73, wherein the alloy comprises about 80 to 98 wt.% Pt and 2 to 20 wt.% Ni.

76. (new) The device of claim 73, wherein the alloy exhibits an electrical conductivity that is at least 10% of the electrical conductivity of the platinum alone.

77. (new) The device of claim 73, wherein the device comprises an actuator.

78. (new) The device of claim 77, wherein the device comprises an optical switching device.

79. (new) The device of claim 74, wherein the tensile strength is at least about 1000 MPa.

80. (new) The device of claim 74, wherein the yield strength is at least about 750 MPa.

81. (new) The device of claim 74, wherein the hardness is about 5 GPa.